



Subject benchmark statement

Geography

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How can I use this document?

This document is a Subject Benchmark Statement for geography that defines what can be expected of a graduate in the subject, in terms of what they might know, do and understand at the end of their studies.

You may want to read this document if you are:

- involved in the design, delivery and review of programmes of study in geography or related subjects
- a prospective student thinking about studying geography or a current student of the subject, to find out what may be involved
- an employer, to find out about the knowledge and skills generally expected of a graduate in geography.

Explanations of unfamiliar terms used in this Subject Benchmark Statement can be found in QAA's glossary.¹

¹ The QAA glossary is available at: www.qaa.ac.uk/about-us/glossary.

About Subject Benchmark Statements

Subject Benchmark Statements form part of the UK Quality Code for Higher Education (Quality Code) which sets out the Expectations that all providers of UK higher education reviewed by QAA are required to meet.² They are a component of Part A: Setting and Maintaining Academic Standards, which includes the Expectation that higher education providers 'consider and take account of relevant Subject Benchmark Statements' in order to secure threshold academic standards.³

Subject Benchmark Statements describe the nature of study and the academic standards expected of graduates in specific subject areas, and in respect of particular qualifications. They provide a picture of what graduates in a particular subject might reasonably be expected to know, do and understand at the end of their programme of study.

Subject Benchmark Statements are used as reference points in the design, delivery and review of academic programmes. They provide general guidance for articulating the learning outcomes associated with the programme but are not intended to represent a national curriculum in a subject or to prescribe set approaches to teaching, learning or assessment. Instead, they allow for flexibility and innovation in programme design within a framework agreed by the subject community. Further guidance about programme design, development and approval, learning and teaching, assessment of students, and programme monitoring and review is available in Part B: Assuring and Enhancing Academic Quality of the Quality Code in the following Chapters:⁴

- *Chapter B1: Programme Design, Development and Approval*
- *Chapter B3: Learning and Teaching*
- *Chapter B6: Assessment of Students and the Recognition of Prior Learning*
- *Chapter B8: Programme Monitoring and Review.*

For some subject areas, higher education providers may need to consider other reference points in addition to the Subject Benchmark Statement in designing, delivering and reviewing programmes. These may include requirements set out by professional, statutory and regulatory bodies, national occupational standards and industry or employer expectations. In such cases, the Subject Benchmark Statement may provide additional guidance around academic standards not covered by these requirements.⁵ The relationship between academic and professional or regulatory requirements is made clear within individual statements, but it is the responsibility of individual higher education providers to decide how they use this information. The responsibility for academic standards remains with the higher education provider who awards the degree.

Subject Benchmark Statements are written and maintained by subject specialists drawn from and acting on behalf of the subject community. The process is facilitated by QAA. In order to ensure the continuing currency of Subject Benchmark Statements, QAA initiates regular reviews of their content, five years after first publication, and every seven years subsequently.

² The Quality Code, available at www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code, aligns with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*, available at: www.engq.eu/wp-content/uploads/2013/06/ESG_3edition-2.pdf.

³ Part A: Setting and Maintaining Academic Standards, available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-a.

⁴ Individual Chapters are available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-b.

⁵ See further Part A: Setting and Maintaining Academic Standards, available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-a.

Relationship to legislation

Higher education providers are responsible for meeting the requirements of legislation and any other regulatory requirements placed upon them, for example by funding bodies. The Quality Code does not interpret legislation nor does it incorporate statutory or regulatory requirements. Sources of information about other requirements and examples of guidance and good practice are signposted within the Subject Benchmark Statement where appropriate. Higher education providers are responsible for how they use these resources.⁶

Equality and diversity

The Quality Code embeds consideration of equality and diversity matters throughout. Promoting equality involves treating everyone with equal dignity and worth, while also raising aspirations and supporting achievement for people with diverse requirements, entitlements and backgrounds. An inclusive environment for learning anticipates the varied requirements of learners, and aims to ensure that all students have equal access to educational opportunities. Higher education providers, staff and students all have a role in, and responsibility for, promoting equality.

Equality of opportunity involves enabling access for people who have differing individual requirements as well as eliminating arbitrary and unnecessary barriers to learning. In addition, disabled students and non-disabled students are offered learning opportunities that are equally accessible to them, by means of inclusive design wherever possible and by means of reasonable individual adjustments wherever necessary.

⁶ See further the *UK Quality Code for Higher Education: General Introduction*, available at: www.qaa.ac.uk/publications/information-and-guidance/publication/?PubID=181.

About this Subject Benchmark Statement

This Subject Benchmark Statement refers to bachelor's degrees with honours, including the higher education levels 4, 5 and 6 of the integrated master's qualification in geography.⁷

This version of the statement forms its third edition, following initial publication in 2000 and review and revision in 2007.⁸

Note on alignment with higher education sector coding systems

Programmes of study which use this Subject Benchmark Statement as a reference point are generally classified under the following codes in the Joint Academic Coding System (JACS).⁹

Single honours:

F800 (Physical geographical sciences); F810 (Environmental geography); F811 (Biogeography); F840 (Physical geography); F841 (Maritime geography); F842 (Geomorphology); F843 (Topography); F844 (Cartography); F845 (Remote sensing); F846 (Geographical information systems); F890 (Physical geographical sciences not elsewhere classified); K100 (Architecture); K110 (Architectural design theory); K120 (Interior architecture); K130 (Architectural technology); K190 (Architecture not elsewhere classified); K200 (Building); K210 (Building technology); K220 (Construction management); K230 (Building surveying); K240 (Quantity surveying); K250 (Conservation of buildings); K251 (Property development); K290 (Building not elsewhere classified); K300 (Landscape & garden design); K310 (Landscape architecture); K320 (Landscape studies); K330 (Landscape design); K340 (Garden design); K341 (Garden horticulture); K390 (Landscape & garden design not elsewhere classified); K400 (Planning (urban; rural & regional)); K410 (Regional planning); K420 (Urban & rural planning); K421 (Urban planning); K422 (Rural planning); K430 (Planning studies); K440 (Urban studies); K450 (Housing); K460 (Transport planning); K490 (Planning (urban, rural & regional) not elsewhere classified); K900 (Others in architecture, building & planning); K990 (Architecture, building & planning not elsewhere classified); L100 (Economics); L110 (Applied economics); L111 (Financial economics); L112 (Agricultural economics); L113 (Economic policy); L120 (Microeconomics); L130 (Macroeconomics); L140 (Econometrics); L150 (Political economics); L160 (International economics); L170 (Economic systems); L171 (Capitalism); L172 (Monetarism); L173 (Keynesianism); L174 (Collectivism); L190 (Economics not elsewhere classified); L200 (Politics); L210 (Political theories); L211 (Liberalism); L212 (Conservatism); L213 (Socialism); L214 (Nationalism); L215 (Fascism); L216 (Feminism); L217 (Environmentalism); L218 (Anarchism); L220 (Political systems); L221 (Autocracy); L222 (Democracy); L223 (Plutocracy); L224 (Oligarchy); L230 (UK government/parliamentary studies); L231 (Public administration); L232 (UK constitutional studies); L240 (International politics); L241 (European Union politics); L242 (Commonwealth politics); L243 (Politics of a specific country/region); L244 (International constitutional studies); L250 (International relations); L251 (Strategic studies); L252 (War & peace studies); L253 (International criminology); L260 (Comparative politics); L290 (Politics not elsewhere classified); L300 (Sociology); L310 (Applied sociology); L311 (Applied criminology); L312 (Victimology); L320 (Gender studies); L321 (Women's studies); L322 (Men's studies); L330 (Ethnic studies); L340 (Disability in society); L350 (Religion in society); L360 (Socio-economics); L370 (Social

⁷ Bachelor's degrees are at level 6 in *The Framework for Higher Education Qualifications in England, Wales and Northern Ireland* (2008) and level 10 in the *Scottish Credit and Qualifications Framework* (2001)

⁸ Further information is available in the *Recognition Scheme for Subject Benchmark Statements*, available at: www.gaa.ac.uk/publications/information-and-guidance/publication?PubID=190.

⁹ Further information about JACS is available at: www.hesa.ac.uk/content/view/1776/649/.

theory); L371 (Social hierarchy); L380 (Political sociology); L390 (Sociology not elsewhere classified); L391 (Sociology of science & technology); L400 (Social policy); L410 (UK social policy); L420 (International social policy); L430 (Public policy); L431 (Health policy); L432 (Welfare policy); L433 (Education policy); L434 (Transport policy); L435 (Security policy); L436 (Emergency services policy); L437 (Criminal justice policy); L490 (Social policy not elsewhere classified); L500 (Social work); L510 (Health & welfare); L520 (Child care); L530 (Youth work); L540 (Community work); L541 (Community justice); L550 (Careers guidance); L560 (Probation/after-care); L590 (Social work not elsewhere classified); L600 (Anthropology); L610 (Social & cultural anthropology); L611 (Criminological theory); L620 (Physical & biological anthropology); L690 (Anthropology not elsewhere classified); L700 (Human & social geography); L710 (Human & social geography by area); L711 (Human & social geography of Europe); L712 (Human & social geography of Asia); L713 (Human & social geography of Africa); L714 (Human & social geography of Australasia); L715 (Human & social geography of the Americas); L716 (Human & social geography of the Arctic/Antarctic); L720 (Human & social geography by topic); L721 (Economic geography); L722 (Urban geography); L723 (Political geography); L724 (Transport geography); L725 (Historical geography); L726 (Cultural geography); L727 (Agricultural geography); L728 (Human Demography); L790 (Human & social geography not elsewhere classified); L800 (Development studies); L990 (Social studies not elsewhere classified).

A range of joint, combined, dual and other degrees also include a significant geography component.

1 Introduction

1.1 Geography occupies a distinctive place in the world of learning, offering an integrated study of the complex reciprocal relationships between human societies and the physical, chemical and biological components of the Earth. Geographers study place, space and time, recognising the great differences and dynamics in cultures, political systems, economies, landscapes and environments across the world, and the links between them.

1.2 In the UK higher education system, geography is a significant subject. Both BA and BSc degree programmes are found; in some cases these are differentiated sharply in terms of curriculum content. A close link between teaching and research, in addition to geography's international standing as a rigorous and applied subject, enhances the attraction of geography programmes.

1.3 The subject is characterised by a breadth of subject matter in which the traditional division has been between human and physical geography. A third category, environmental geography, embraces programmes that deal explicitly with the relationships between people and the natural environment. This also builds upon the role of geography taught in schools as the main discussion platform for environmental topics and issues.

1.4 The spectrum of bachelor's degree programmes in the UK requires diverse theoretical approaches in order to make available the full suite of analytic and interpretative tools provided by the natural and social sciences, by the humanities, and by information technologies that include, for example, those employed within geographic information science (GISci) and remote sensing.

1.5 Geography has strong links with other subjects in the sciences, social sciences and humanities. These strong links mean that geography may also be studied in joint or combined degrees (for example, with anthropology, archaeology, biology, earth science, economics, environmental science, geology, history, mathematics, sociology, planning, politics) or in modular programmes. In most cases there are Subject Benchmark Statements relevant to the non-geographical components of joint and combined degrees which may be referred to alongside this benchmark statement.

1.6 The breadth of geography means that many of its core constituents may be approached through a number of routes, and this statement does not intend to be prescriptive. Providers offering degree programmes in geography are free to decide upon the details of content and organisation. A valued characteristic of the subject is its plurality of ways of knowing and understanding the world, and the depth to which individual specialisms are studied varies according to the nature of specific departments. Appendix A illustrates some of the subfields within the subject. Nevertheless, section 3 does suggest that there are some common areas of knowledge, with accompanying modes of understanding. These areas are echoed in section 6, where they are developed into the concept of levels of achievement.

1.7 Progression within higher-level study of a subject such as geography is likely to involve some measure of specialisation. In the initial stages of a degree programme, students achieve a basic knowledge and understanding of a range of different approaches to the subject. Thereafter, progression and specialisation inform critical reflection about both the subject's diversity and its unifying themes. By the end of a programme, students are able to situate their chosen specialisms within a wider understanding of the subject. Given the emphasis on diversity, it is important that potential students are fully informed of the particular nature and strengths of individual programmes.

2 Aims of an honours degree programme in geography

2.1 The aims identified in this Subject Benchmark Statement are appropriate to single honours geography programmes, and proportionally to those programmes where geography is studied in a joint or combined degree, or as part of a modular degree framework. The application of the benchmark standards allows for this variety of provision. Unless otherwise indicated, some proportionality is likely with degree programmes that are not single honours, in the depth and breadth of engagement with the subject knowledge and skills outlined in the following sections.

2.2 An essential and characteristic aspect of geography is the role of fieldwork and other forms of experiential learning in the development of knowledge and understanding. Rigorous fieldwork and experiential learning are underpinned by knowledge of, and skills in, the theoretical and methodological approaches that inform their conduct. Experiential learning contributes significantly to curiosity and enquiry about human and physical environments, the development of discerning observation and measurement, and recognition of the importance of scale. Graduates understand the evolution and significance of the distinctiveness of places and environments, including different approaches to their interpretation, and a parallel understanding of the role of spatial linkages in social and physical processes (see also section 3).

2.3 Within the context of understanding the distinctiveness of place and environment, a geography graduate possesses a substantive depth of knowledge through specialisation within substantive sub-fields of the subject. Through progression within a degree programme these may be situated within both physical and human geography, within either physical or human geography, or at the interface of the two, including within environmental geography. Exemplar and indicative subfields are listed in Appendix A; this is not intended to list all subfields nor to be prescriptive. This detailed knowledge is underpinned by a skill set that facilitates a critical awareness of relevant philosophies, how data for the subfields are gathered, how they are displayed, analysed, critically appraised and interpreted, and of the roles of scale, space and time in shaping relationships, differences, and change.

2.4 Through a diversity of provision in degree programmes, students acquire a range of academic and generic skills (section 4). Geography graduates have learned to interpret and analyse information and to tackle geographical issues through the deployment of skills specific to the geographer and professional researcher, including the use of appropriate information and communication technologies (ICT) (section 5). They are well placed to make use of, and contribute to, the development of, interdisciplinary aspects of knowledge.

2.5 Geography fosters a range of personal attributes relevant to the world beyond higher education, which promote the ability of geographers to engage in lifelong learning, to consider ethics and values, to contribute to the wider community, and to gain employment. Some graduates choose to develop specialist research skills in social or natural sciences, or the humanities; the subject prepares all graduates to compete for a wide variety of employment.

3 Subject knowledge and understanding

3.1 It is anticipated that single honours degree programmes in geography address the areas of knowledge and understanding described in the following paragraphs so that graduates are conversant with these aspects of the subject. Other degree programmes containing geography address these areas proportionally according to the subject balance within, and goals of, such programmes. As they progress, students develop a greater depth of knowledge and gain an understanding of the vital contribution made by research in their subject.

3.2 Geographers can articulate the knowledge, understanding, skills and approaches that characterise the discipline as a whole. They understand the place of their discipline in contributing a holistic perspective on natural and human worlds, interactions, and processes that is distinctive of geography compared with other disciplines. They understand the complex relationships between natural and human aspects of environments and landscapes. They appreciate the geographical meanings of concepts encompassing:

- knowledge of environments being the result of natural processes
- knowledge of environments and landscapes as the result of human activity
- a critically informed understanding of ways of representing and interpreting the world.

3.3 The concept of spatial variation is fundamental to the subject, meaning that geography graduates are able to demonstrate knowledge and explanations of spatial distributions in both physical and human phenomena. They are able to explain the pattern and dynamic nature of spatial variations in earth surface processes, water, landforms, climate, vegetation and soils. They also recognise the ways in which spatial relations are an inherent and important feature of economic, social, cultural and political activity, and how they reflect, reproduce and remake social relations. Geographers are aware of the importance of spatial dimensions in broader debates and issues involving policy.

3.4 An appreciation of temporal change is central to an understanding of the human and physical worlds, their development, interaction and interdependence. Geographers understand the dynamics and rates of change at different temporal and spatial scales and can evaluate the processes shaping the geographies of the past, present and future. They are able to evaluate modelling approaches that help predict future change and strategies to mitigate negative impacts of change on society. An understanding of change is necessary across all areas of the subject; for example in historical geography, environmental and climate change, and Quaternary science.

3.5 Geographers have a critical awareness of the significance of spatial and temporal scale for natural processes, human processes and their interactions and analysis. They comprehend how such processes operate across local, regional and global scales to produce particular geographies. They are also aware of how the scale of study can impact upon the conclusions that may be drawn from any particular study.

3.6 The way in which the distinctiveness of a particular place is constituted and remade by physical and human processes is understood by geographers, as is the influence of place-specific characteristics on such processes and how these may change through time. Geographers demonstrate an awareness of the constitution of places outside their own immediate everyday experience and are aware of the global context of their learning.

3.7 Geographers are able to use critically a systems framework to conceptualise patterns, processes, interactions and change in the physical world. They know how to incorporate into this framework:

- natural environmental impacts on human activity (for example natural hazards)
- human impacts on biophysical systems (for example air pollution, deforestation, desertification), and on components of the climate system
- the management of environments and landscapes.

3.8 Geographers demonstrate knowledge of the main dimensions and scales of economic, social, political and environmental inequality and difference, are familiar with a range of interpretations of these processes, and are aware that scale itself can be contested and politicised. A critical evaluation of the concepts underlying development and sustainability needs to be an integral part of the knowledge base of the student.

3.9 Geographers have a clear understanding of the drivers of change in the natural world over space and time, demonstrating knowledge of the interactions between climate, ecosystems, and landscapes. They understand controls on fluxes of energy and matter within and between the earth's surface and the atmosphere. They are aware of typical rates of change, and of methods and approaches used to study change in the natural world. Concepts such as thresholds, intrinsic and extrinsic drivers, along with approaches such as biogeochemical cycles, sediment and water budgets and environmental reconstruction, underpin this knowledge of spatial and temporal change in biophysical environments.

3.10 Geographers have a critical understanding of the history of the subject and are aware of how changes in the subject itself have influenced its development. A historical perspective of geography portrays it as a dynamic, plural and contested intellectual subject. This requires an appreciation of the diverse approaches to geographical investigation and of the subject's changing relationships with related fields of inquiry in the natural sciences, the social sciences, and the arts and humanities. Geographers possess a critical awareness of the distinctive contribution they have made, and continue to make, within and beyond academia.

3.11 The literal derivation of the term geography is 'earth-writing'. Geographers show knowledge and critical understanding of the diverse manners of representation of the human and physical worlds, and are aware of how representation can itself affect interpretation. Maps have an important historical role as representations of the world, and geographers are conversant with their modern forms and dimensions. However, geographers also have a similar depth of understanding of other representational forms, including texts, visual images and digital technologies.

3.12 It is vital that geographers have a firm grasp of the principles of research design, the main methodological strategies used in the analysis and interpretation of geographical information, and show a critical understanding of the appropriate contexts for their use. There is variation in the methodologies taught in different programmes. However, programmes should develop familiarity with a range of methodologies including those used in data collection and analysis; field and laboratory work and process modelling; programming; ethnography; focus groups; interviewing; archival work; discourse and textural analysis; and participant observation.

3.13 It is important to emphasise numeracy and numeric skills. Geographers require skills in the presentation, interpretation, analysis and communication of quantitative data. They are familiar with a range of statistical techniques including simple descriptive statistics, inferential tests and relational statistics such as correlation and regression; principles of research design and ways to collect data; the retrieval and manipulation of secondary data

sets; and geospatial technologies such as digital cartography, Geographic Information Systems (GIS) and remote sensing. Attention is given to spatial statistics, to issues of spatial dependency, to spatial difference and to the effects of scale.

3.14 Geolocated data and geospatial technologies are increasingly central to geography in a digital world. Geographers study how digital worlds are created and analysed through the study of GISci, and apply that knowledge through the use of GIS and remote sensing.

3.15 Geographical knowledge and understanding inform concern about the Earth and its people: the subject is intrinsically global and international. Geographers compare and contrast processes occurring in different parts of the world. They critically analyse global, national, regional and local issues and their work proposes ways of mitigating human and physical problems and of addressing new challenges. Geographers can take a global view, but are able to inter-relate global and local perspectives. Geographers are aware of the relevance of geographical concepts, techniques and expertise to problem solving, wealth creation, poverty reduction and improving the quality of life and well-being, for example, in the context of climate change, urban and rural planning, hazard assessment, sustainability and environmental management. However, awareness of this is balanced by recognition of their limitations, a critical understanding of their broader social, political and environmental contexts and the ethical implications of their application.

3.16 Geography is intrinsically a field-based subject. Field experience is an essential part of geographical learning and all geographers require the opportunity to plan, undertake and report significant fieldwork during their programme. Students are familiar with, and practise, methods and strategies of field research in human and/or physical geography, taking a critical view of the challenges and opportunities of field-based research.

4 Skills, abilities and attributes

4.1 Geography programmes furnish students with subject-specific and wider intellectual and generic skills that together provide the basis for employability and lifelong learning. Geographers have the ability to work on a wide range of applied research. Students learn 'through' geography in addition to learning 'about' geography. The attention given to skills facilitates academic performance, career prospects and contributions to the wider community.

4.2 Given the rich diversity of geography degrees and the range of options in which students are able to specialise, it is unwise to be too rigid or prescriptive in setting out the skills that graduates are likely to possess. Nonetheless, in broad terms, they are able to demonstrate competence in most of the skills, abilities and attributes itemised in this Subject Benchmark Statement.

4.3 While recognising and valuing the diversity of good practice, it is useful to emphasise some of the general principles underpinning successful acquisition of skills. The skills dimension is best planned in conjunction with the knowledge-based curriculum, so that the relationship between the two is given detailed consideration. Skills are taught, practised and assessed within a curriculum framework that is balanced, coherent and progressive, so that the level of challenge and achievement is gradually increased throughout, taking students to the frontiers of research.

Intellectual and subject-specific skills

4.4 Geography enhances a range of intellectual skills and abilities that are acquired through use of its learning resources, frequent practise of its methods and immersion in appropriate research contexts. Some of these skills are subject-specific, but all are relevant and transferable to other intellectual contexts. Geographers are adept at bringing together perspectives from multiple subjects, thinking laterally across debates, synthesising materials, and holding ideas in creative tension.

4.5 Geographers use a variety of sources of evidence and are able to apply appropriate forms of both quantitative and qualitative analysis. Geographers are numerate and able to judge the appropriate spatial and temporal scales for the purpose of their analysis.

4.6 Geographers are skilled in specific quantitative and qualitative techniques and understand the appropriate context for their use. They learn not to misapply data and have an appreciation of the situations when conclusions drawn from data are ambiguous.

4.7 The range of intellectual and subject-specific skills developed through a geographical education generally includes:

- spatial awareness and observation
- abstraction and synthesis of information
- developing a reasoned argument
- assessing the merits of contrasting theories and explanations
- numeracy and statistical literacy
- the handling of large datasets
- preparing effective maps, diagrams and visualisations
- primary data generation, collection and recording, and the use of secondary data sets (both quantitative and qualitative)

- critically evaluating, interpreting and combining different types of geographical evidence (for example texts, imagery, archival data, maps, digitised and laboratory data)
- analysis and problem-solving through quantitative and qualitative methods
- planning, designing and executing a piece of rigorous research or enquiry, both independently and in groups, including the production of a final report
- conducting fieldwork and field data collection
- employing a variety of interpretative methods (for example, participant observation, ethnographic interviews, and auto-ethnography)
- employing a variety of social survey methods (for example questionnaire surveys and structured interviews)
- employing a variety of science laboratory skills and methods (for example, soil, water and plant sample preparation, microscopy, particle size analysis, soil and water chemical analysis)
- methods for the collection and analysis of spatial and environmental information (for example: GIS, remote sensing, statistical and mathematical modelling)
- taking responsibility for learning and reflection upon that learning
- recognising the moral, ethical and safety issues involved in all aspects of geographical enquiry.

Generic skills

4.8 Additionally, as a result of studying a degree programme in geography, students develop generic skills in the following areas:

- learning and studying, developing autonomous learning and metacognition
- decision making and prioritising tasks
- record keeping and archiving
- synthesising, contextualising and critically evaluating information of different styles and from different sources
- oral, written and graphical communication
- information and data handling and retrieval
- an understanding of intellectual property and copyright
- communication in formats appropriate to the audience
- the ability to work in groups and teams and to recognise and respect the viewpoints of others.

Personal attributes and social skills

4.9 In addition, geography fosters the development of a range of personal attributes, including:

- motivation
- ability to work responsibly, autonomously and with others
- self-awareness and self-management
- self-confidence
- empathy and insight
- intellectual integrity
- awareness of responsibility as a local, national and international citizen with a global perspective
- the skills to engage in lifelong learning
- flexibility and adaptability a creative approach to problem solving.

5 Teaching, learning and assessment

5.1 Geography implements pedagogic innovation and develops teaching methods. The range of teaching and learning contexts is continually evolving, for example, with the development of flexible, virtual and distance-learning environments, work and community-based learning, and the increasing use of self-determined learning.

5.2 Programmes enable students to experience active and reflective learning through exposure to a range of teaching approaches. For example:

- lectures
- seminars, tutorials, supervisions or other small-group formats
- directed self-study, reading and library use
- laboratory practical classes, including the use of scientific laboratories and advanced computer facilities
- fieldwork, both taught and self-organised
- a range of student-centred learning opportunities, which might include virtual learning environments, self-directed study, problem-based learning, teamwork and work-based learning
- e-learning
- distance learning.

5.3 Given the importance of the development of technical skills in a variety of areas of geography, facilitating access to libraries, information systems, laboratories, equipment and technical resources is essential.

5.4 An education in geography involves an active engagement with the external world. Fieldwork and experiential learning constitutes an essential aspect of this engagement and thus has a variety of roles in:

- providing an opportunity to apply theoretical, technical and scientific laboratory methods and findings to more complex, uncontrolled field environments
- identifying problems and framing research questions, testing hypotheses and designing research
- encouraging consideration of the ethical aspects of research processes
- developing a sense of place, identity, awareness of difference, and sensitivity to others
- promoting generic skills such as teamwork and observation.

5.5 Within most honours degree programmes in geography, it is anticipated that some form of independent research work is a required element. Students experience the entire research process, from framing enquiry to communicating findings. Independent research is often communicated in the form of a dissertation presented in the later stages of the programme. Other formats could include research posters, journal articles or work-placement reports. This independent research may involve field-based data collection, or other forms of primary or secondary research. Regardless of the nature of the research, the student's learning requires critical reflection on the potential risks as well as the moral and ethical issues of the research project. On joint and combined honours programmes, students still conduct independent research work, although this may be in an interdisciplinary context or outside geography.

5.6 The balance within a degree programme of these teaching and learning styles, and of the associated assessment methods, will clearly vary from one higher education provider to another, consistent with the overall mission, aims and objectives of both the provider and

the programme. However, honours degree programmes in geography will characteristically have recourse to a wide range of learning and teaching styles, as befits the intellectual heritage of a discipline whose concerns are with both environment and society.

Assessment

5.7 An assessment and feedback strategy will support learning and allow students to demonstrate their level of attainment and discuss their progress; this is enabled by a learning and teaching policy that promotes these outcomes. For each method of assessment the aims, requirements and marking criteria are clearly defined and aligned, allowing appropriate progression throughout the degree programme. Such a strategy reflects the variety of abilities and skills developed within the curriculum, the types of teaching methods and learning contexts used, and the learning outcomes of the degree programme. Moreover, it recognises the value of formative assessment for promoting deep reflective learning. Students are given opportunities to take part in self-assessment and peer review, and to work individually and in groups. Students are encouraged to demonstrate their full range of abilities, with providers offering a mix of assessment methods that are, overall, equally accessible to students from varying educational backgrounds and in different learning situations.

5.8 Students of geography are likely to encounter the following assessment methods in their degree programme, where appropriate:

- essays and reports of varying lengths (press releases, consultancy reports, briefing papers, annotated bibliographies, article critiques)
- the creation of online resources (web pages, blogs, audio and video podcasts)
- oral presentations (debates, conference style poster presentations, seminars)
- practical work (in the field, scientific and computer laboratories, and relating to quantitative and qualitative analyses)
- unseen and seen examinations with a range of types of questions/tasks
- reflective learning journals
- independent research dissertations and capstone projects (and proposals for these)
- work-based assessments.

6 Benchmark standards and levels of achievement

6.1 The performance of all honours graduates in geography may be expressed with reference to the areas of achievement identified: knowledge and understanding (section 3); and intellectual, subject-specific and generic skills (section 4).

6.2 The following table expresses performance in terms of learning outcomes at the end of a bachelor's degree with honours. It is important to note that Subject Benchmark Statements are phrased in broad terms, to encourage higher education providers to develop diverse and innovative programmes within the overall framework provided by this document. As stated in paragraph 1.6, it is not intended that the benchmark standards are used in a prescriptive manner. These descriptors are intended to aid the preparation of the curriculum.

6.3 Student achievement is demonstrated across all areas of performance (knowledge and understanding, intellectual, subject-specific and generic skills) although not necessarily covering all of the items identified in the table and with due regard for progression through an honours programme.

6.4 The table identifies three levels of achievement: threshold, typical and excellent. The first describes the minimum standard to be achieved by an honours graduate; the middle describes the majority of graduates; the last describes a group who exceed typical performance and achieve very highly.

6.5 **Threshold** graduates possess a basic knowledge and understanding of change within human and physical environments, of interrelationships between these environments and of the interdependence of places at various scales. Their view of the subject and its methodologies is strongly influenced by formal teaching and has a limited critical perspective. Competence in essential subject-specific, intellectual and generic skills is demonstrated.

6.6 **Typical** graduates display a critical awareness of the scope and methodologies of the subject, based on a solid foundation of knowledge, consistently demonstrating a command of appropriate subject-specific and generic skills as well as proficiency in most of the higher-level intellectual skills. Typical graduates are also distinguished from the threshold level by a capacity for developing and applying personal perspectives critically to their studies.

6.7 Geography graduates that achieve **excellence** beyond the typical standard are distinguished primarily by superior intellectual skills, which are deployed in the context of wide-ranging knowledge of the various aspects of the subject. The strength of geography's methodological breadth is most clearly demonstrated in its best graduates, who bring originality, insight and superior critical and reflective abilities to bear upon this knowledge, and have the capacity to link theory and practice in identifying and tackling research problems. This quality is evident across the spectrum of assessed work, but is perhaps most clearly demonstrated in independent work, especially dissertations, which may produce outcomes that are at or close to the levels of publishable research, and which represent an advance within subject knowledge.

	Threshold	Typical	Excellent
Knowledge and understanding	Describe and exemplify the nature of change within human environments	Demonstrate comprehension of the nature of change within human environments	Demonstrate critical insight into the nature and causes of change within human environments
	Describe and exemplify the nature of change within physical environments	Demonstrate comprehension of the nature of change within physical environments	Demonstrate critical insight into the nature and causes of change within physical environments
	Describe and exemplify the reciprocal relationships between physical and human environments	Demonstrate comprehension of the reciprocal relationships between physical and human environments	Demonstrate critical insight of the complexity of the reciprocal relationships between physical and human environments
	Describe and exemplify the significance of spatial and temporal relationships as influences upon physical and human environments	Demonstrate comprehension of the significance of spatial and temporal relationships as influences upon physical and human environments	Demonstrate critical insight of the significance of spatial and temporal relationships as influences on physical and human environments
	Describe and exemplify the diversity and interdependence of places	Demonstrate comprehension of the diversity and interdependence of places at various spatial scales	Reflect on and appraise the reasons for the diversity and interdependence of places at various spatial scales
	Describe and exemplify the diversity of approaches to generation of knowledge and understanding deriving from experience of the epistemologies of the natural and social sciences and humanities	Evaluate the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of the natural and social sciences and humanities	Critically appraise the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of the natural and social sciences and humanities
	Carry out routine investigations as instructed	Apply understanding of geographical concepts in different situations	Apply a reflective understanding of geographical concepts in different situations

	Know the difference between accuracy and precision	Apply a systematic approach to accuracy, precision and uncertainty	Critically reflect on the accuracy, precision and uncertainty of research data
Subject-specific skills	Illustrate the issues involved in applying research design and execution skills within the specific context of field-based research	Evaluate the issues involved in applying research design and execution skills within the specific context of field-based research	Formulate a sophisticated and comprehensive analysis of the issues involved in applying research design and execution skills within the specific context of field-based research, including alternative options
	Illustrate diversity of techniques and approaches involved in collecting geographical information (for example instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources)	Evaluate the diversity of techniques and approaches involved in collecting geographical information (for example instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources)	Critically appraise and reflect on use of the diversity of techniques and approaches involved in collecting geographical information (for example instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources)
	Illustrate both quantitative and qualitative approaches for analysis of geographical information and data and perform basic applications	Evaluate both quantitative and qualitative approaches for analysis of geographical information and data, including competence in the application of a range of these approaches	Critically appraise and reflect on the application of quantitative and qualitative approaches for analysis of geographical data, including excellent and sophisticated application of a range of these approaches
	Illustrate diversity of specialised techniques and approaches involved in analysing geographical information (for example special techniques for the analysis of spatial information, GIS, laboratory techniques, qualitative and quantitative techniques)	Evaluate the diversity of specialised techniques and approaches involved in analysing geographical information (for example special techniques for the analysis of spatial information, GIS, laboratory techniques, qualitative and quantitative techniques)	Demonstrate a mastery of techniques and approaches involved in analysing geographical information (for example special techniques for the analysis of spatial information, GIS, laboratory techniques, qualitative and quantitative techniques) and very good judgement of their effectiveness

	Illustrate diversity of specialised techniques and approaches involved in presenting geographical knowledge and information (for example GIS, cartography and different textual strategies)	Evaluate the diversity of specialised techniques and approaches involved in presenting geographical information (for example GIS, cartography and different textual strategies)	Critically evaluate and reflect on the appropriate application of the diversity of specialised geographical techniques and approaches
	Communicate personal views about geographical issues	Communicate and compare different views about geographical issues	Critically reflect on a range of views about geographical issues and come to a reasoned evaluation
Generic skills	Communicate geographical ideas, principles and theories by written, oral and visual means	Communicate geographical ideas, principles and theories effectively and fluently by written, oral and visual means	Communicate geographical ideas, principles and theories with flair, accuracy and sophistication by written, oral and visual means
	Present material to support a reasoned argument	Relate material appropriately to the intended audience	Ability to excellently communicate complex arguments to a variety of audiences
	Use communications and ICT to select, analyse, present and communicate geographical information	Use communications and ICT effectively and appropriately to select, analyse, present and communicate geographical information	Use communications and ICT with a high level of competence to select, analyse, present and communicate geographical information
	Interpret and use numerical and statistical information	Interpret and use numerical and statistical information effectively and appropriately	Interpret and use numerical and statistical information in a sophisticated manner
	Apply basic numerical skills to geographical information	Apply more advanced numerical and statistical skills effectively and appropriately to geographical information	Apply sophisticated numerical and statistical skills and techniques effectively and appropriately to geographical information

	Undertake independent/self-directed study/learning (including time management) within a supportive framework	Undertake independent/self-directed study/learning (including time management) to achieve consistent, proficient and sustained attainment	Undertake highly autonomous and well organised study/learning and time management to achieve consistent, proficient and sustained attainment
	Perform assigned tasks within a group setting and take part in group discussions	Work as a participant or leader of a group and contribute effectively to the achievement of objectives	Demonstrate group leadership and supportive participation of others within a group setting to achieve objectives
		Analyse the process of learning and evaluate personal strengths and weaknesses	Critically reflect on the process of learning, evaluating personal strengths and weaknesses and alternative strategies

7 Conclusion

7.1 Geography attracts students with a wide range of intellectual backgrounds, interests and experiences, grounded in natural and social sciences and the humanities. A major intellectual task within the subject is to encompass this diversity of contexts and the different types of knowledge that are characteristic of the study of the Earth's physical environments, human societies and the interactions between the two.

7.2 At the same time, recognition that all knowledge is provisional implies that the subject must be aware, not only of the different approaches to that knowledge, but also of how that knowledge is produced and how it changes. These considerations have a major consequence for benchmarking a subject that is more dynamic than many. New concerns and new ways of understanding the world mean that the content and study of geography itself changes.

7.3 Nonetheless, there are some fundamental underpinnings in approach that require emphasis and recognition: geography crosses subject boundaries while retaining its uniqueness, it is both quantitative and qualitative in its analysis of natural and social phenomena and their interlinkages, and fieldwork and laboratory study are key components of its teaching strategies. Higher education providers reflect both these underpinnings and ongoing changes in their programmes.

Appendix A: Indicative specialisms and areas of geography

This table is indicative, not inclusive, and is in alphabetical in order to remove any possible interpretations of unintended prioritisation. Some topics could appear in more than one column, some have distinct specialisms within that could represent further subdivisions, and some are shared with other subjects.

Human geography	Physical geography	Environmental geography	Technologies and methodologies
Cultural geography	Biogeography and ecology	Environmental management	Cartography
Development studies	Climatology	Hazard studies	Fieldwork
Economic geography	Earth system science	Regional geography	GIS and GISc
Gender studies	Geomorphology	Resource management	Modelling
Historical geography	Hydrology	Rural geography	Qualitative methods and analysis
Political geography	Meteorology	Sustainable development	Quantitative methods and analysis
Social geography	Quaternary science	Tourism studies	Remote sensing
Urban geography	Soils	Transport studies	Spatial analysis

Appendix B: Membership of the benchmarking and review groups for the Subject Benchmark Statement for geography

Membership of the review group for the Subject Benchmark Statement for geography (2014)

Professor David Thomas (Chair)	University of Oxford
Dr Graham Bird	Bangor University
Dr Sarah Dyer	University of Exeter
Professor Martin Evans	University of Manchester
Dr Richard Harris	University of Bristol
Professor Mike Heffernan	University of Nottingham
Dr Jennifer Hill	University of the West of England
Gill Miller	University of Chester
Professor Joanne Sharp	University of Glasgow
Dr Catherine Souch	Royal Geographical Society (with the Institute of British Geographers)
Dr Helen Walkington	Oxford Brookes University
Professor Katie Willis	Royal Holloway, University of London
Dr Wendy Woodland	University of the West of England
Janet Bohrer	QAA
Brigitte Stockton	QAA

Employer representative

Angela Baker FRGS CGeog	EuroGeographics
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Student reader

Hemish Goodeal	King's College London; Institute of Education
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Membership of the review group for the Subject Benchmark Statement for geography (2007)

These details are as published in the second edition of the Subject Benchmark Statement.

Dr Lorraine Craig	Imperial College - formerly with the Royal Geographical Society (with the Institute of British Geographers)
Professor Ian Simmons	University of Durham
Dr Catherine Souch	Royal Geographical Society (with the Institute of British Geographers)

Membership of the original benchmarking group for geography (2000)

These details are as published in the original Subject Benchmark Statement for geography.

Dr C T Agnew	University College London
Professor M Bradford	University of Manchester
Ms S Birkhill	College of St Mark and St John
Dr S Buckingham-Hatfield	Brunel University
Professor B Chalkley	University of Plymouth
Professor K Chapman	University of Aberdeen
Dr G Clark	Lancaster University
Dr D Gilbert	Royal Holloway, University of London
Professor M J Healey	Cheltenham and Gloucester College of Higher Education
Professor J A Matthews	University of Wales, Swansea
Professor K S Richards	University of Cambridge
Professor I G Simmons	University of Durham
Professor D J Unwin	Birkbeck College, University of London
Dr P E White	University of Sheffield
Dr L Craig (ex officio)	Royal Geographical Society (with The Institute of Geographers)
Dr R Gardner (ex officio)	Royal Geographical Society (with The Institute of Geographers)

Corresponding members:

Mrs J R Blumhof	University of Hertfordshire
Dr D R Green	King's College London
Professor A Jenkins	Oxford Brookes University
Dr D J Spooner	University of Hull
Professor P A Stott	School of Oriental and African Studies, University of London

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